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ORIGINAL AND SELECTED ARTICLES.

VIBURNUM PRUNIFOLIUM.

BY THOMAS F. HOUSTON, M. D., OF CLARKESVILLE, GA.

There is a trite old saying, "When doctors differ then the devil's to pay," but in spite of this warning, I feel constrained to take issue with Dr. A. G. Smythe on account of an article upon this subject, published in the RECORD for December. The writer utterly annihilates this valuable drug, saying that no remedy had so utterly failed him as viburnum, during a practice of forty-five years. While I would not, for one moment, question the Doctor's veracity, I am at a loss to understand these results, so diametrically opposite to my experience in its use. And I must attribute his want of success to the inferiority of the article, or the smallness of the dose. Being a new and comparatively little used remedy, there is not the same care taken in its collection and manufacture as there is of the standard drugs. In regard to the dose, the various works give the dose of the fluid extract (the only form in which the drug should be used) as one drachm. I rarely give less than two, and repeat this every fifteen minutes until I get the desired effect, if I have to give a fluid ounce. In fact, my method of using the drug is to give to my pregnant patients, if there is the slightest tendency to abortion, a bottle of the fluid extract, and direct them to take from one to four drachms every time they feel any pelvic

uneasiness, proportioning the dose to the amount of the disturbance, and to assume the recumbent posture. If the patient has ever miscarried, I direct her to take one drachm three times a day during the week in each month that the menses would be present, did not the pregnancy exist. I could cite many cases in which this treatment succeeded perfectly—in one, the lady went to full time, after having miscarried seven times.

Of course I do not claim that black haw will cause the retention of a dead fœtus, or remove the reflex irritation caused by an ulcer or a laceration of the cervix, or other mechanical or pathological reason for this attempt of the uterus to expel its contents. But in the condition known as irritable uterus, due entirely to nervous action, caused by over exertion, fright, mental worry, an abortive tendency, etc., if the dose is sufficiently large and given early enough in the attack, viburnum will prove itself worthy of the confidence that I ask for it. In cases in which worry or mental excitement or grief is the exciting cause, the bromides, tincture of valerian, or valerianate of ammonia, is a valuable addition. Though I have no ambition to "excel my predecessors in sounding the virtues, claims and praises of viburnum prunifolium in the prevention and arrest of abortion, miscarriage and all the concomitant troubles attending that condition," still I must say that, in my humble judgment, if it is used in the class of cases given, and with sufficient promptness, it is as much a specific for abortion as quinine for malaria, and aconite for inflammatory fever.

Speaking of quinine, I give it in full doses to pregnant women *without hesitancy*, simply combining a corresponding dose of black haw with it. Again, there is nothing better for after-pains, and this very evening, since I commenced to write this article, I was summoned to see Mrs. ——, suffering with neuralgic dysmenorrhœa which was relieved in 15 minutes by ʒii viburnum and 5 grs. croton chloral hydrate. In ordinary cases the croton chloral is not needed, but if there is much nervousness it is well to combine it.

I trust Dr. Smythe will pardon my differing so strongly with him, but it is in the hope that it will call out the opinions of others who have tested this drug, and who are more competent to defend it than I am.

FLUID extracts of digitalis and colchicum are said by Dr. Squibb to be more eligible preparations than the corresponding tinctures. They are eight times as strong, and cost only half as much.—[Louisville Medical News.

RHUS TOXICODENDRON—(POISON OAK.)

BY R. L. HINTON, M. D., OF ARKANSAS.

Having noticed quite a number of remedies offered in the Journals during the past twelve months for the cure of the distressing rash caused by poison oak, I offer a specific in "sassafras tea"—an infusion of the root, or better, the bark of the root of red sassafras—for there are certainly two varieties, known as the red and the white sassafras. Bathe diseased surface frequently, or constantly in the cold infusion, or better, apply a wet cloth. I am very susceptible of this poison myself, and stumbled upon this remedy from painful experience about fifteen years ago. I have used no other remedy since that time, though frequently called upon to prescribe for this poison, and in several cases that were aggravated by the application of various remedies, many of them worse than the disease. In such cases I advise the warm infusion as a drink three times a day, which, with sugar and cream, makes a pretty good substitute for tea or coffee. I have found this remedy a success in other skin diseases.

ABSTRACT OF A CLINICAL LECTURE ON THE RECOGNITION AND TREATMENT OF THE EARLY STAGES OF POTT'S DISEASE.

BY D. HAYES AGNEW, M. D.,

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REPORTED BY J. WILLIAM WHITE, M. D.,

Demonstrator of Surgery in the University.

GENTLEMEN—There is, perhaps, no disease in which it is more important to recognize the early and premonitory symptoms than the one with which the little patient before you is affected, and which is variously known as Pott's disease, angular curvature, antero-posterior curvature, and caries of the spine. Each of these titles are, in some respects, objectionable. The name of Mr. Percival Pott has been associated with the disease because to him we owe the first correct exposition of its pathology and treatment. It, however, conveys no information as to the character of the ailment, and although the most common, is perhaps the least useful of its designations. Angular curvature and antero-posterior curvature are names derived from certain symptoms which are not invariably present, and which do not usually appear until what might be called the second stage has been reached. They therefore, as has been pointed out by Mr. Howard Marsh, are liable to mislead

the practitioner by causing him to regard them as necessarily to be found at all periods of the disease. Neither is caries of the spine, although present in a large majority of cases, an absolutely constant pathological condition in such patients, the characteristic symptoms being sometimes produced by a process of interstitial absorption, which goes on to the destruction of the bodies of the vertebræ without the ulceration and suppuration which are essential elements of true caries.

We may say, however, that, call it by what name you will, the disease is one in which, owing to one or the other of these processes, a disintegration of the vertebral bodies takes place, producing, *first*, irritation of the spinal nerves as they pass out through the intervertebral foramina; and, *second*, a crumbling of the affected bones under the superincumbent weight of the head and body. When this breaking down of the vertebræ occurs in the anterior portion of their bodies, as it commonly does, and when, as is also usually the case, it is attended with the production of pus, we have the more or less marked deformity, and the psoas, iliac, lumbar or dorsal abscesses, which, as a rule, characterize this period of the disease and render it easy of recognition.

I shall confine myself to-day, however, to calling your attention specially to the symptoms belonging to the first stage, which, in nearly every instance, are due to nerve irritation, and which, taken together, should almost unfailingly lead to the detection of the true nature of the malady, at a time when proper treatment will often result in complete cure without disfigurement, but which in practice I find are usually not recognized until this all-important period has passed. Any one of these symptoms may be the first to attract the attention of the child's family; but, as a rule, you will be consulted in reference to a supposed alteration in the little one's disposition, a tendency to avoid all active amusements, a slight dullness or peevishness, or general malaise, which only becomes noticeable or alarming on account of its persistence. If you will at this time carefully observe the movements and posture of the child, you will see that its motions are restrained, that it carries itself with unnatural stiffness, that its gait is possibly a little shuffling, the feet not being litted from the ground, and that when standing or sitting it leans forward and rests its hands upon the knees or anterior portions of the thighs. You should now at once reflect that these symptoms are all explicable on the theory that some change is going on in the spinal column, probably in the vertebral bodies, but, possibly, in the intervertebral substance, which has set up an irritation in the spinal nerves, and has rendered them unduly sensitive; that, on account of this condition, play has become distasteful, as requiring muscular movement which produces at least a sense of discomfort; that the slight jarring or concussion of ordinary walking gives rise to pain; and that to remove pressure from the inflamed structures, the child, through the medium of its arms, instinctively transfers the weight of its head and shoulders to its lower extremities.

You then proceed to look for further symptoms of nerve irrita-

tion, and will, probably. by careful investigation, elicit some or all of the following:

Hurried or grunting respiration on slight exercise, due to involvement of the nerves supplying the external respiratory muscles—serratus magnus, quadratus lumborum, intercostals, etc.

Pain in the shoulders, the walls of the thorax, or in the lumbar region, the seat varying with the portion of the spine affected by the disease.

Pain at the pit of the stomach, resembling an ordinary "belly-ache," but due to irritation of the spinal nerves, which, in common with the sympathetic, supply the intestines. This pain, like that of colic, is temporarily relieved by the prone position, pressure on the bowels, controlling, to a certain extent, the irregular and spasmodic action of their muscular coats, which is associated with both these conditions, or, in other words, fulfilling the same function as the roller bandage in fractures.

Fidgety movements of the feet from implication of the crural or sciatic nerves, or their trunks of origin.

Pain in the hip, knee or thigh, due to the same cause.

Pain on jumping, coughing, sneezing or sudden turning, or on any movement which takes place while the dorsal muscles are relaxed, or, so to speak, "off guard."

Pain elicited by pressure upon the head or shoulders, and strictly localized, involving a small area directly over a definite part of the spine. Conversely, it will be found that the pain, if constant, will be relieved by placing the child in a prone position across the knees, and then separating them gently, so as to make traction in opposite directions upon the two extremities of his vertebral column.

Hyperæsthesia, also limited to a definite region, and detected by passing a hot sponge along the vertebral gutters. Evidences of pain are often manifested when the diseased part is reached.

Peculiar, and very characteristic, method of reaching objects lying upon the ground. The patient will lower himself, not as would be natural, by any movement of the body, which will be held rigidly perpendicular, but by flexing the knees and thighs until the hand touches the desired article. In rising, the same care will be observed to avoid flexion or rotation of the spine.

I do not desire to be understood as teaching that all of these symptoms are without exception present in the early stages of Pott's disease, but you may rest assured that in nearly every case you will find several of them, and that you will be able by their means to make your diagnosis and to apply your treatment.

The latter, both in principle and practice, is extremely simple. When you recall the condition upon which the symptoms depend, and remember that its progress is hastened and its severity increased by pressure and by the weight of the head and upper portion of the trunk, it at once becomes evident that surgical interference must be directed towards a removal of these sources of aggravation of the original trouble.

The recumbent posture, strictly adhered to and continued for a period long enough to permit of the gradual subsidence of the in-

flammation, the absorption of its purulent or cheesy products, and the development of new fibrous or bony material to consolidate and strengthen the affected vertebræ, would meet all the therapeutic indications. In young children this may be thoroughly carried out, the enforced rest only terminating with the occurrence of anchylosis, particularly if the disease be situated in the cervical or cervico-dorsal region. In the great majority of cases, however, this is hardly feasible; the natural restlessness of the child, and the absence of careful and continuous attention on the part of the parents, who see no marked external evidence of the disease, usually sufficing to thwart this plan of treatment or to preclude its persistent employment.

The same indications should then be met by the application of a mechanical apparatus, to be worn uninterruptedly, and which will permanently remove all weight from the inflamed bones.

Of all those which have been devised for this purpose, two only are worthy of mention, viz: the Plaster-of-Paris jacket applied in the now well-known manner, or a leather jacket, accurately moulded and fitted over a plaster cast taken from the patient. The latter dressing, although more expensive at first, is lighter and more durable than plaster, and answers the purpose of support equally well. With either of them, where the disease is situated above the lumbar region, the head-suspension apparatus becomes a necessary addition to the jacket. Both of these appliances act by shifting the weight of the head and shoulders from the spine to the irregular surface of the thorax, abdomen, and loins, and to the margin of the pelvis. When anchylosis has occurred, which may be known by a gradual disappearance of the symptoms, the jacket may be dispensed with, removing it at first for a few moments each day, and gradually lengthening the interval, until it is left off altogether.

In conclusion, I would caution you against the common and harmful assumption that in every case some mechanical support can be employed, by means of which the patient can, with safety, be allowed to go about. In certain cases, fortunately not very numerous, where all these dressings give rise to pain, or in which the deformity appears and increases in spite of them, they should be withdrawn, the only possible hope of arrest or cure of the disease depending then upon strict and protracted recumbency. In conjunction with any of these plans of treatment, fresh air, sunlight, nutritious food, cod-liver oil, iodide of iron, and the phosphates constitute useful hygienic and therapeutic adjuvants.—[N. Y. Med. News.

Vaccinal Syphilis.—A letter to La France Medicale (July 30, 1881) says that the Algerian journals are full of the most lamentable details regarding the numerous cases of syphilis which have appeared in the garrison of Algiers, following a public vaccination made on certain Algerian soldiers. It is said that fifty-eight young men have contracted syphilis by being vaccinated with lymph given by a syphilitic infant.—[Medical Times.

PRACTICAL OBSERVATIONS IN TYPHOID FEVER.

BY H. V. FERRELL, M. D.,

A paper read before the Tri-States Medical Society, St. Louis, at its meeting October 25th, 26th and 27th, 1881.

During the last fourteen years, it has been my fortune to be connected in one way or another with about four hundred cases of typhoid fever—for a period of near two years never being without a case under treatment. As this short paper is not the result of as thorough and complete a study of the cases as I propose, at some future time, to give them, I shall confine myself to the more salient points in the few observations I have to make.

It is taught by late writers that typhoid fever is caused by a specific typhoid fever germ—a germ that may retain its viability for an indefinite length of time—that, however bad the hygienic surroundings may be, typhoid fever will not originate *de novo*.

If the first proposition were true, we would expect to see the disease reappearing in houses that had formerly been visited by it, and might expect it to be carried by fomites. Indeed, taking up its abode in houses, and rendering them dangerous for future habitation. Or, again, assuming the correctness of the second proposition, we would not expect to find the disease in localities where it had never been known before, and affecting persons living under the best possible hygienic circumstances—persons who had never so much as seen or heard of a case of typhoid fever. In my experience, I have seen nothing to support this theory of the causation of typhoid. On the contrary, I have most generally seen it under precisely the opposite conditions. I have known typhoid fever to originate in families and in localities where it had never been known to appear before, and to confine itself, like a tornado, to a narrow, well-defined belt of country, and, after starting out upon its march, and after its direction and rate of progress were known, I have seen the time and place of its appearance correctly predicted. I have seen typhoid fever appear in the best regulated families—families living under the very best hygienic circumstances, attack one member and spare the balance; and, again, sparing none. I have seen it originate, as far as we could tell, without cause, and confine itself to those in the family, and others who visited the family on errands of mercy or friendship—none being attacked. Again, I have known intimate and free communication between patients and those living without the typhoid fever range, without any evidence whatever of contagion.

In the diagnosis of typhoid, the chief difficulty is to distinguish it from some form of malarial fever. This cannot always be done early in the disease. Typhoid is sometimes initiated by two or more well defined chills occurring periodically. Generally, however, upon close inquiry we find that the fever did not entirely subside between the chills.

When the disease is fully developed, the diagnosis is not difficult; even the laity readily recognize it. In typhoid we generally

have the abdominal symptoms developed early. The rash, in my experience, is oftener absent than present. Persistent severe pain in the frontal and lumbar regions is a symptom upon which much reliance is placed, and in practice the administration of quinia for two or three days without any beneficial effect very often decides the diagnosis in favor of typhoid. A pointed tongue, red at tip and edges, abdominal tenderness, with tympanitis are usually the earliest symptoms. Epistaxis as a symptom may be discarded entirely. Sweating without a corresponding decrease of temperature may be classed among the earliest symptoms.

Some cases begin abruptly; the patient having been in usually good health up to the very moment of being stricken with a chill. Others begin so insidiously that neither the patient nor his friends have any idea that he is the victim of a serious malady until far advanced in the disease.

I call nothing typhoid fever without satisfactory evidence of intestinal lesions, at the same time admitting that similar intestinal lesions may perhaps be associated with other pathological conditions. A neglected or badly treated case of malarial fever may assume any or all of the symptoms of typhoid, except those pertaining to the intestinal lesions. Such cases it is customary with us to call typho-malarial fever—meaning by that simply a malarial fever with the typhoid symptoms superadded, and not one with intestinal lesions at all, much less lesions differing in imagination only from those of typhoid.

My acquaintance with typhus fever is too limited to justify me in speaking of it. Suffice it to say, however, that I have more than once seen cases of typhoid fever, which, occurring under the conditions under which typhus fever is said to occur, would have been pronounced typhus without any hesitation whatever. Of the complications of typhoid fever, I have seen ten cases of intestinal hemorrhage. In six of these the hemorrhage was preceded early in the disease by copious, mushy discharges from the bowels. Twice, on the appearance of such discharges, was the occurrence of hemorrhage correctly predicted, and in no case do my notes show the occurrence of such discharges without being followed by hemorrhage.

But one case of hemorrhage terminated fatally. A mild form of bronchitis was a frequent complication—pneumonia rare and never fatal. Of perforation of the intestine, two cases—both fatal, of course. In but one fatal case were there ever any serious cerebral symptoms, and that late in the disease; although in many others the delirium was alarming. The liver is said by authority never to escape more or less structural change. I have known the symptoms referable to the liver so prominent as to lead good practitioners to suppose it to be the chief seat of disease. In no case, however, have I known a diseased liver left as a legacy of typhoid fever, as determined by the subsequent history of the case. I have never known hiccough, except in cases of inflammation of the peritoneum and threatening or actual perforation.

The prognosis of typhoid fever, though as a general rule good, should always be guarded. We see cases of the mildest type con-

tinuing for a great length of time, and ending in hemorrhage, perforation, death. Others, of an apparently grave type, pursuing a short course, and ending in recovery. So, then, we may say there are no symptoms by which we can tell the extent of the intestinal lesions, or foretell what the duration or termination of the disease is going to be. In one of my fatal cases the disease had seemingly pursued a very mild course, and the patient was thought to be convalescent. He became startled in his sleep, suddenly jumped, said he felt something tear inside of him, and died of peritonitis within thirty-six hours. I have had two cases to continue as long as thirteen weeks, one apparently mild, the other grave. Both recovered. It is rare, indeed, that a case will terminate under two weeks. I have known two cases terminate fatally within a week after taking to bed, but weeks after they had been laboring under the fever.

One distinguished writer says of the temperature in typhoid, that if, from the fourth to the eleventh day of the disease, the temperature falls below 103 degrees, it is not typhoid fever. I have repeatedly seen the temperature during that period below 103 degrees—three cases, one of them fatal, in which the temperature never reached that point. On the other hand, I have seen one case in which, an hour before death, the thermometer in the axilla marked 109.8 degrees. I have seen but one case recover in which the temperature ever went above 106 degrees. In the three cases in which the temperature never rose to 103 degrees, the pulse was slow and feeble, often falling as low as forty-eight beats per minute. In one fatal case, a young clerk, who, not knowing that he was suffering from a serious malady, kept at his business for two or three weeks, trying to wear the fever off, the axillary temperature always exceeded that in the mouth by from two to three degrees.

I have seen the pulse range from 120 to 144 per minute, and the patient recover.

The London Medical Record, July 15th, 1881, calls attention to cases of typhoid fever occurring in exhausted individuals, and running their course with low temperature or without fever, but with a tendency to gangrene of the extremities. I have seen one such case, in which I amputated the thigh at its middle third—the patient made a good recovery. I have seen but two cases of typhoid during pregnancy. One recovered without aborting, and went to full time. The other is not yet determined.

The treatment of typhoid fever is quite satisfactory. While we do not possess any specific for the disease, yet the low rate of mortality is, I think, largely due to its management. The mortality in my experience barely exceeded two per cent. In the treatment there are three fundamental rules to be kept in view:

1st. Put the patient to bed early, and enjoin the most absolute rest throughout the whole course of the disease. In all cases of doubt in the diagnosis, I advise the patient to take his bed. If it is not typhoid, rest is not apt to hurt him, and if it is, it may be the very means of saving his life. In every one of my fatal cases this rule was not observed. In the two cases of death from per-

foration, one had been about with the fever on him for two weeks, the other three. In the one from hemorrhage, the young man tried for near three weeks to wear his fever out. I have lost no case where the patient took to bed early.

2d. Early and judicious alimentation; by early I mean within the first forty-eight hours. The aliment should be highly nutritious, easily assimilated, in a liquid form and given at regular intervals.

3d. Use drugs only to meet indications, and with a well-defined purpose, and no longer than that purpose is subserved. The German specific treatment I believe to be utterly worthless, if not worse. If the temperature runs high, use quinia and digitalis in large doses, sponge the surface freely and frequently with equal parts of whisky and water, to which may be added a little muriatic acid. To control the bowels and to correct the offensive odor of the discharges, bismuth and carbolic acid, or bismuth and liq. sod. chlorinati. For the vomiting which is sometimes very troublesome, oxalate of cerium, in 10 gr. doses, or calomel in doses of the 1-10 or 1-12 of a grain. For restlessness or sleeplessness, codeia has answered my purpose best. For intestinal hemorrhage, hypodermic injections of ergotine, or what answers just as well, Squibbs' fluid extract of ergot. For great muscular or nervous weakness I have seen tinc. nucis vomicæ produce excellent results.

Finally, I have no sort of doubt as to the utility of alcoholic stimulants early and judiciously administered.—[St. Louis Clinical Record.

COCCOBACTERIA IN PURULENT OTORRHŒA.

BY C. LAMBERT, M.D., OF GOSHEN, IND.

A Paper read before the Elkhart Co. Medical Association, at their October Meeting.

MR. PRESIDENT AND GENTLEMEN OF THE SOCIETY:—I would like to call your attention to a subject of vital importance in the treatment of purulent otorrhœa, and point ont what, in my estimation, is and has been the cause of so many failures in arresting the breaking down and loss of the delicate organisms of the ears affected with this oppressive and destructive disease.

The chief cause of this putrid decomposition has been generally overlooked. I allude to the microscopic coccobacteria present in the pus, and the therapeutical indications furnished by their presence.

I design, with your permission, at our next meeting in December, to present slips for microscopic exhibition, and continue my remarks on this same subject.

Coccobacteria septica belongs properly to the domain of general bactorio-pathology, and I need not speak of this in particular, but call your attention to the recent investigations by eminent scientists and patient investigators, who have perfectly demonstrated the presence of these microphytes in the fetid ear discharge, and given us the cue for more rational therapeutics in these cases. It

I hope, will be granted me to quote a few lines from Billroth and Lowenberg, as the very latest we have on this subject.

"Lowenberg has, since June, 1880, carefully subjected to examination the products of secretion of the affected ears of all the patients coming under his care, in order to enable him to study the nature of the respective mycrophytes. The examination consisted, on the one hand, in the microscopic study of the pus (with all its accompanying detritus), obtained by syringing or otherwise; on the other hand, in attempts at cultivation, partly in the above mentioned media, and partly in boiled neutralized urine."

The experiments were obtained with all the precautions necessary and indispensable in such cases. The experiments demonstrated that in all these cases we had to deal with the ordinary organisms of decomposition.

"In all cases of otorrhœa where the cleansing is not done with the greatest care, and by the aid of suitable apparatus, the pus contains great numbers of micrococci. If, in consequence of persistent neglect, the secretion is allowed to become offensive, the micro-organisms swarm in incredible quantities."

"In this connection, we can state with decided emphasis that, contrary to the belief in competent circles, the pus secreted in simple purulent otorrhœa, in its fresh state, is as little offensive as that from other diseased mucous membranes, simply on account of the absence of any cause therefor. Fetor, then, according to their present opinion, points to stagnation and a high degree of decomposition dependent thereon, the existence of which is proved by the presence of micrococci.

"The most abundant secretion or multiplication of micrococi is found in those cases that have been treated with emollients, particularly with cataplasms These coccobacteria find all the aliments necessary to their growth and multiplication in the fetid ear discharges. If cataplasms increase the moisture and heat, and contribute additional organic material, we have an actual hot-house culture of bacteria.

"This condition explains the fact, well known to otologists, that, after the prolonged employment of cataplasms, almost interminable purulent processes in the ear often remain behind. Under this unintentional artificial cultivation, the putrefactive organisms reach a high degree of development, and in their turn keep up the prolonged suppuration. By a similar development and furtherance of micrococci, though of a special character, we may interpret the fact that after continued application of poultices, outbreaks of furuncles may be incited in any part of the body."

Recognizing the presence of coccobacteria in nearly all these cases, and being satisfied of their presence, I will offer some observations from recent practice, and suggest a course of treatment that has been very satisfactory in my hands. All of us are aware of the difficulty of treating properly these cases of perforation of the tympanum and chronic purulent catarrh of the middle ear, and I will reieterate by saying that the proper instruments are necessary: speculum, mirror, probes, syringes and absorbent cotton, etc., etc., and antiseptic remedies. The ear should be inspected

every day, and carefully cleansed. I rely upon the syringe and absorbent cotton, and the appearance from day to day of the diseased parts is to dictate all the changes, if any, in the local treatment necessary.

I claim that no physician can treat successfully these cases as out-door cases. They must be surrounded with all care and circumspection; diet nutritious, and put, if necessary, upon alteratives and tonics, and cease entirely being exposed to the causes that originally produced the diseased condition; then we have a fair chance at the case. It may be a few days, or a few weeks, before we can get all the accumulations removed, so that when a remedy in liquid state is put into the meatus it can readily be forced through the middle ear and Eustchian tube. This is a *sine qua non* in the successful management of even the simplest case. The time need not exceed, upon an average, more than from two to four weeks, even in the worst cases presenting. I cleanse the ear with a weak solution of carbolic acid, then generally mop out all the pus and detritus, and then resort to the Eustachian catheter, and find that the battle is fairly won when air can be made to pass through all the channels; then, and only then, are medications indicated. As to the particular ingredients of said washes, they are many; some say this is best, some that, I avoid nitrate of silver and sul. cupri almost entirely, and depend upon mild astringent solutions of sul. zinc, sul. morphia, alum, and a trace of carbolic acid; fill the meatus full of this solution, and force it down through middle ear and Eustachian tube. I find that where the ear-drum is intact, and there is as yet no development behind it, acute otalgia can generally be relieved by very warm water, or warm solution of atropia sul., and that a timely operation for paracentesis of drum, when pus has accumulated, will hasten a cure and save the patient untold pain and suffering.

So the points I would make are—to use mild astringent remedies, combined with antiseptics, such as carbolic acid, boracic acid, etc., etc., thorough inspection of the parts, careful cleansing, and a special local treatment that has for its main object the destruction of these coccobacteria. One reason, in my mind, that bacteria are found in so many of these cases, is the fact that most cases applying are chronic ones, and have been accustomed for days at a time to plugging the meatus in order to get relief from the fetor, and protect their clothing.—[Chicago Medical Examiner.

SPONGE GRAFTING.

Among the new things recently introduced into medicine, "sponge grafting" stands conspicuous. The process consists, nothing more or less, than in introducing into the system a piece of sponge, which is intended to do its work as a stimulus to the reparative process, and then to be absorbed and eliminated. Dr. D. J. Hamilton, pathologist to the Edinburgh Royal Infirmary, claims the honor of having introduced the method, and in the November number of the Edinburgh Medical Journal he reports in detail his

experiments, the practical conclusions to which they led him, and the crucial tests corroborative of such conclusions.

In a paper prepared some years ago, Dr. Hamilton made the statement that the vessels of granulating surface are not newly formed, but are simply the superficial capillaries of the parts which have become displaced; that they have been thrown upwards as granulation loops by the propelling action of the heart, because the restraining influences of the skin have been removed. While making observations with which to substantiate this claim, he was struck with the similarity of the process of vasculation as seen on a granulating surface, and that which occurs when a blood-clot or fibrinous exudation is replaced by vascular cicatricial tissue. Blood-clot or fibrinous lymph he came to regard as merely playing a mechanical and passive part in any situation where it becomes replaced by fibrous cicatrix, and that their vascularization is not owing to new formation of blood-vessels, but rather to a displacement and pushing inwards of the blood-vessels of surrounding tissues. Being convinced that the blood-clot, or fibrinous lymph, before organization takes place, was just so much dead matter in a tissue, it occurred to him that if some dead porous animal tissue could be substituted for the natural exudate it would, in course of time, become vascularized and replaced by cicatricial tissue. An accidental circumstance in the summer of 1880 suggested to him that in sponge we have a substance which he had long vainly sought to discover. It is porous (thus imitating the fibrinous network in a blood-clot or fibrinous lymph), it is an animal tissue, (thus, like cat gut, it is capable of absoption), and it is of such texture as permits of its adaptation to surfaces and adjustment to cavities.

Having arrived at the above conclusions by a process of reasoning, Dr. Hamilton reports five experiments in which these conclusions are strongly sustained. One of these will be sufficient here: A woman had several ulcerated wounds on different parts of her body. One of these, circular in shape, five inches in diameter, and from half to three-quarters of an inch deep, was on the outside of her leg. The edges were indurated, slightly raised, and in some places undermined. There was a cellular tissue slough at the deepest part of the wound, which gave the whole ulcer a somewhat putrefactive odor; the rest of the floor was in a granulating condition. This one was selected for experiment. August 3d, 1880, it was filled with one large piece and several small pieces of very fine sponge, which had been prepared by dissolving out the siliceous and calcareous salts by means of a dilute mineral acid (nitro-hydrochloric), subsequently washing in liquor potassa, and then finally steeping in 1 to 20 solution of carbolic acid in water. The sponge in this instance has soaked for some months in the carbolic solution, but Dr. Hamilton does not regard such prolonged soaking necessary. The sponge in the central part of the wound rose a little higher than the edges, so that at its greatest thickness it must have measured from half to three-quarters of an inch, and five inches wide. It was made to fit the wound very accurately, and was inserted beneath the undermined edges. A

piece of green protective was placed on the surface, and, above this, lint soaked in a 1 to 20 solution of carbolic acid in glycerine, with a little tincture of lavender in it. The whole was covered with a pad of boracic lint. An ordinary bandage was then applied, and the patient kept in bed with limb at absolute rest.

Without reprodueing the detailed daily report of this case, it is sufficient to say that the wound was dressed daily, such secretions as had oozed through being washed off, but the sponge left undisturbed. On January 5th, 1881, the patient was exhibited to the Medico-Chirurgical Society, and not a vestige of the sponge remained, and the wound was changed to a superficial, typical, granulating surface, measuring about 1½ inches diameter.

The first experiment convinced Dr. Hamilton that if sponge be placed over a granulating surface its interstices will, in the course of time, become filled with blood-vessels and cicatricial tissue, just as in the case of a blood-clot, and, ultimately, that the whole of the sponge will disappear in the wound, leaving an organizing mass of new tissue in its place. The vacuites in the sponge appear to be specially adapted for allowing of this, and the frame-work of keratode affords support to the young vessels which are formed within it. It further showed that even where the wound continues in a putrescent condition, organization will still go on. In the case of the blood-clot, putrefac ion tends to destroy it, in that of the sponge, its texture being more resistent, it does not seem to make much difference. There is no difficulty in keeping the sponge aseptic in a wound, provided it be so at the time of its introduction.

Dr. Hamilton's subsequent experiments were strongly corroborative of the first, and if the procedure shall prove equally successful in the hands of others, a very important device will be found to have been placed in the hands of surgeons.—[Michigan Medical News.

HOW TO AMPUTATE A LEG.

BY THEODORE A. McGRAW, M.D.,

Professor of Surgery in the Detroit Medical College. Clinical Lecture delivered at St. Mary's Hospital on October 15th, 1881.

GENTLEMEN—Two years ago this young man, previously healthy, acquired constitutional syphilis. I do not know how he had been treated nor why the disease should have assumed so intractable a form. When he entered the hospital a month ago, he was suffering as he now is from caries of the left ankle and both right and left sternoclavicular articulations, from white swelling of the right elbow and from an ulcer in the back. Ninety grains of iodide of potassium have been given him every day for three weeks without avail in arresting the disease, and the ankle has become so intolerably painful and is so thoroughly disorganized that we have decided upon amputation as a means of saving his life. And simple as an amputation may seem to you, there are many things to con-

sider. First of all, as we have the privilege in this case of electing our place of amputation, we have to ask whether the patient can afford an artificial leg, or whether he will have to content himself with a wooden peg. In the latter case we would serve his interests best by making a very short stump which would not project inconveniently far behind him nor be in his way. In the former case, we would make the stump longer so as to give a better support for the artificial leg, and yet not so long as to occupy all the space above the ankle. The mechanism which moves the ankle and other joints of the foot in an artificial leg is usually placed in a hollow part of the apparatus below the stump. It would be a mistake, therefore, to amputate so low down as to occupy all such available space and to force the artificer to use other and less suitable expedients for accomplishing the purpose In this case, I will choose the middle third of the leg, and make a stump to which either a peg or a leg may be adapted as circumstances may require. In the next place I will endeavor with this anemic patient to save every drop of blood, and for that purpose will use an Esmarch bandage, beginning to wind it, however, above the seat of disease in order that no pus nor putrid material may be forced into the circulation. By means of this bandage the circulation can be perfectly controlled and all the main arteries and veins of the leg be tied without any hemorrhage whatever. This does not, however, always make a perfectly bloodless operation, for you will often find that the removal of the constricting cord will be followed by quite a stream of blood, part of which regurgitates through the open mouths of the united veins and part of which flows from anteries which have escaped notice. This is especially the case with robust plethoric patients and where long standing irritations have produced enlargement of the collateral vessels. Now that the patient is ready, we will apply the bandage and prepare for operating. I will make two skin flaps, each of which consist of the skin of half the circumference of the leg and about three inches long. These being retracted without pulling the patient down upon the table at all, I cut the muscles through with this long narrow knife, passing the blade between the bones and cutting the flesh entirely away.

I wish you to notice particularly how easy it is to amputate a leg quickly and neatly without disturbing the position of the patient on the table. My assistant throws the limb to the side of the table and I apply the saw to the fibula first, and then to the tibia. You see that I dispense entirely with the three tailed retractor. Commonly used it is altogether unnecessary, and takes up unnecessary time. Now that the leg is off, I take up first the anterior and then the posterior arteries, and after that their respective veins. Upon loosening the constricting cord, however, you see a free hæmorrhage which requires further ligation of veins and arteries. I will now wash the stump with hot water and bring the flaps together with sutures, having first put a rubber drainage tube through the wound. In dressing the stump we will press the flaps firmly on the cut surfaces and bandage them snugly. Carbolized oakum being first applied as an elastic compress.

Now that the patient is removed, I wish to call your attention again to two points in which my procedure differs from that of the books. 1st. I did not draw the patient off the table. This habit dates from the days before anesthesia, when the skill of the surgeon was reckoned inversely as the time occupied in operating. Nowadays with unconscious patients, it is far easier and altogether neater and less confusing to draw your patient near the side of the table, to have the leg elevated by an assistant, and to proceed quietly with the operation. Why should one hurry when a moment's delay causes neither shock, pain nor loss of blood?

2nd. I dispensed with the altogether unnecessary retractor. I might say in addition a word of warning, and that is, to avoid a method of operating which also dates from an ancient time. Never amputate a leg by making a posterior flap from the calf. Such flaps can be made with the utmost celerity but their weight makes them afterwards unmanageable. They drag away from their anterior attachments and rarely heal by first intention. I have seen multitudes of such stumps, and I have never yet seen one that seemed to me satisfactory when t ealed.—[Detroit Clinic.

A SIMPLE WAY OF PERFORMING OPTICO-CILIARY NEUROTOMY—THE PROPOSED SUBSTITUTE FOR ENEUCLEATION.

BY JOS. A. WHITE, M.D.

Surgeon in charge of the Richmond (Va.) Eye, Ear and Throat Infirmary. **Read before the Medical Society of Virginia, October 11th, 1881.**

The section of the optic and ciliary nerves behind the eye-ball for the prevention of sympathetic ophthalmia after injury, was first proposed by Von Graefe; but the operation was first performed by E. Meyer and A. Weber, in 1866. Since then and more recently—in the last four or five years—it has been frequently done.

The first mode of getting at the nerves was by cutting the external rectus muscle from the sclerotic and passing the scissors through the opening thus formed. A later method was that of cutting the internal rectus. Another plan was, without cutting any of the recti, to make a meridianah incision between the internal and superior recti.

I have tried all three of these methods, and all have their objections. The cutting and re-adjusting a muscle is very troublesome. I found the opening between the upper and inner recti difficult to work through on account of the nose being in my way, and also it was objectionable because I nearly always cut an oblique muscle.

I therefore tried an opening between the upper and outer recti, as I would thus escape the oblique muscles, and have found it to work admirably in three cases so far operated on. The operation is performed as follows: A meridianal incision is made through the conjunctival and sub-conjunctival tissues from the upper border of the external rectus to the outer border of the superior rec-

tus, thus exposing the selerotic. A strabismus hook is then inserted under each of these muscles, and with them an assistant pulls the eye down and towards the nose. A small lid elevator is then hooked under the upper lip of the incision and drawn up, thus making a large opening through which the curved scissors can be passed behind the eye-ball, and the optic and ciliary nerves cut. Knapp's double hook is then inserted into the posterior part of the sclerotic and, without any trouble, the cut end of the optic nerve and its surroundings are exposed to view at the incision. The selerotic is then carefully cleaned with the scissors—thus cutting away sections of the optic ciliary nerves. As long as any blood oozes from the opening, it is kept open. When this ceases, a conjunctival stitch is put in, and cold water dressing applied.

The three cases I have thus operated on had no pain nor protrusion of the eye following the operation, and the cornea has remained perfectly anæsthetic to this time in all of the patients, although more than six months have elapsed.

I have no where seen a suggestion to so perform this operation—the modifications having grown solely out of my difficulties in following prescribed methods. It is easier of performance than any other. The posterior part of the eye is more easily attacked from this point, and we also avoid cutting an oblique muscle; and the use of the hooks and retractor allows a free play of the scissors and a good view of the back of the eye-ball when rotated into the opening.—[Virginia Med. Monthly.

VACCINATION AND VACCINIZATION.

The alarming prevalence of small-pox through certain sections of the country, notwithstanding the very general vaccination which has been practiced during the past few years, will have the effect of stimulating inquiry into the protective influence of the operation as it is ordinarily performed. It is only those who, having declared against the power of vaccinia to protect against variola, and are casting about for arguments to support their position, who will seize upon the existence of the present endemic in the Northwestern States a a prop with which to sustain themselves. Such argument is, however, that of the special pleader, and ill befits the earnest searcher after truth. The fact that a vaccinated person in a given case is seized with small-pox, is not a legitimate argument against vaccination, in the proper meaning of the term. There are many reasons why the operation may have proven a failure:—The virus may not have been of proper quality, and although it may have caused a local sore, that sore may not have had the characteristics of the vaccinia pustule. This, we believe, 's a not uncommon occurrence. The effects of vaccinia may have disappeared from the system; they evidently do pass from the systems of some sooner than from others, as attested by the results of revaccination. Perhaps humanized virus, which has passed through many systems, has been employed, and, the views of Jenner to the contrary notwithstanding, it seems to be no longer doubtful that

humanized virus undergoes deterioration in its passage through the system, and is not as safe a protective as that which has been taken directly from the heifer.

But all of the above conditions may be observed, and precautions taken, and still the vaccinated person not be proof against small-pox. A recent German writer has submitted a plausible suggestion as to the cause of the incomplete immunity in such cases. The person, he says, although vaccinated, is not "vaccinized"—the latter term being that by which he designates such a changing of the system with vaccinia as to overcome the susceptibility to variola. A series of carefully conducted experiments has convinced him that a not inconsiderable proportion of those vaccinated are not vaccinized. He now recommends, and in cases where he has authority, compels successive vaccinations until the susceptibility to the virus has completely disappeared, as indicated by absence of the slightest trace of the essential character of the vaccine pustules at the point of application. He has found that, in some, sores more or less characteristic may be produced until the third vaccination, and holds that as long as such a sore is possible, the person is susceptible to small-pox.

These observations are pregnant with suggestions, and perhaps we have in them the removal of the weighty argument against vaccination, which exists in the fact that vaccinated persons not infrequently die of variola, the vaccination not having vaccinized. —[Michigan Med. News.

Prize Essay.—The Committee on Prize Essays for the Kentucky State Medical Society has decided to offer fifty dollars ($50) for the best essay embodying the results of original experimental research, or original clinical observation on the nature, mode of propagation, pathology, and treatment of scarlatina.

1. Competing essays must be the composition of, and in the handwriting of the authors, who must be members of the Kentucky State Medical Society.

2. They must be marked by a motto or character, accompanied by a sealed envelope, bearing the same motto or character, enclosing the author's name

3. They must be sent to the chairman of the committee before the 15th day of March, 1882.

The committee may reject any or all essays presented. In case of award, the successful essay shall be read to the Society on the morning of the second day of the annual meeting, after which the chairman of the committee shall open the sealed envelope, make known the name of the author, and publicly award the prize.

DUDLEY S. REYNOLDS, M. D., Chairman.
HENRY M. SKILLMAN, M. D.,
A. R. MCKEE, M. D.,
DAVID W. YANDELL, M. D.,
CHARLES H. TODD, M. D.

ABSTRACTS AND GLEANINGS.

Susceptibility to Variola.—Dr. Porterfield, in Medical and Surgical Reporter, says: I find among the laity an almost universal opinion, and, indeed, among some physicians, that an attack of any of the zymotic diseases in the pregnant female will exempt the child from future attack. But from my own experience, and others which I have seen, I am led to the conclusion that if such is the rule, the exceptions to it are so numerous that but little dependence can be placed upon it as a prophylactic means. Of the considerable number of cases I have collected I will cite but three.

CASE 1.—Mrs. N., primipara, aged 27, was attacked with anginose variety of scarlatina, about the eighth month. About five days after the onset of the fever she was delivered of a pretty large boy, presenting a characteristic rash all over his chest, neck and face; this subsided and disappeared in about two days, the child showing no further symptoms, but died in its third year of the same disease in the malignant form.

CASE 2.—Mrs. R., during her second pregnancy, was attacked with the measles—this was during the fourth month. She went to her full term, the child showing no evidences of the malady, but it subsequently did have a well defined case of the same disease.

CASE 3.—Mrs. P. was vaccinated during her first pregnancy, and so violently did the virus attack her that she was confined to her bed for two weeks; the scars (two in number) are as large as a silver half dollar. The child was recently vaccinated by myself, and it worked very successfully, a well marked scar showing in each place.

Such cases as these, and others that have come to my notice, convince me that little dependence can be placed in the fact that the pregnant female has had a contiguous disease, or that she has been vaccinated while in this condition. I believe that in every person who has a contagious disease there is a special affinity for the poison of that particular disease, and that this affinity is an abnormal condition, a disease, so to speak, the conditions necessary to the existence of which we are at present in ignorance of, and hence we cannot say whether or not it may exist more than once. I believe that an attack of the disease exhausts this affinity and thus renders the subject exempt till the condition re-exists. Believing this, it is easy for me to see why many cases occur where the child fails to be exempt, even where the mother has been attacked while it was a fœtus in utero.

Small-Pox Pustulation in the Fœtus in Utero.—In reply to the question whether true pustulation of variola can occur in the fœtus in utero Dr. R. H. Day, of Baton Rouge, says in Maryland Medical Monthly: In the winter of 1831 and 1833, in the lower end of Calvert county, Maryland, in that portion adjacent to the Patuxent river, just below the mouth of St. Leonard's creek, upon

the plantation of Dr. McGill, of Fredericksburg, Maryland, there occurred a number of cases of small-pox, some mild, others confluent and grave; among the latter was a negro woman, some 30 years of age, near the end of gestation.

She gave birth to her child some ten or twelve days after the eruptive stage of her disease, and perhaps two or three weeks of her full term.

I was with her at her confinement. The fœtus was evidently living up to within a short time of its birth, as the mother had felt its motions distinctly within a few hours of her delivery; and when born there was no appearance whatever to throw discredit upon the mother's statement; but my eyes looked upon a sickening spectacle—a fœtus covered with a full and distinct crop of small-pox pustules from head to foot, some of them already ruptured, and the excavations filled with pus, and many still unruptured, so characteristic as to mark the true nature of the eruption at first sight.

I very carefully examined the fœtus with enthusiastic interest, and desired much to preserve it as a pathological specimen, but in the country I had neither jar nor alcohol in which to keep it.

The Bone-Conduction of Sound.—In the New York Medical Journal and Obstetrical Review for February, 1882, Dr. J. A. Andrews, Assistant Surgeon to the Manhattan Eye and Ear Hospital, gives an account of his investigations in regard to the intermittent perception of sound, as conveyed through the cranial bones—the observations having been mostly clinical, largely with the use of the tuning-fork. In order that an explanation for the phenomenon of intermittent bone conduction may be understood, he thus formulates the points in differential diagnosis between an affection of the middle ear and one of the labyrinth, as evidenced by examination with the tuning-fork: 1. If a vibrating tuning-fork, c, be placed between the teeth, the hearing power being normal on one side and diminished on the other, and its tone be intensified in the ear of which the hearing power is diminished, the cause is seated in the external or middle ear, and the labyrinth is unaffected. 2. If the hearing power be impaired in both ears, and the sound of the tuning-fork be heard better in the worse ear, and intensified on closure of the ear of which the hearing power is most impaired, the cause is still located in the middle ear. 3. If under either of the above-mentioned conditions the vibrations of the tuning-fork be not heard better in that ear of which the hearing power is most impaired, even if its meatus be closed with the finger, and middle-ear disease as a cause can be excluded, there is an affection of the central apparatus of hearing. If the tone of the tuning-fork be still intensified by closure of the ear of which the hearing power is least impaired, there is disease of the eternal apparatus on one side only. Should the sound of the tuning-fork not be intensified by closure of either ear, then the disease is on both sides, and has its seat in the labyrinth or in the brain. In the first and second propositions the increased resonance results from the reflection of the vibration from the cranial bones

upon the nerve. In the third proposition the reflection or condensation of the vibrations of the tuning-fork upon the nerve when the meatus is closed does not intensify their perception, because the function of the auditory nerve itself and not that of the conducting apparatus is impaired. The peculiarity that in some cases of middle-ear disease the watch is not heard by bone-conduction, and in other cases examination with the tuning-fork gives the signs of labyrinth disease—i. e., the tuning-fork being heard by bone-conduction better in the ear which is normal as to hearing power, therefore diminished instead of increased in the ear of which the hearing capacity is impaired—cannot, it seems to him, be explained by assuming an interference with the conduction through the chain of ossicles. He inclines to the belief, based upon experiments, that this phenomenon is due to increased intra-labyrinthine pressure, brought about in those cases of middle-ear disease in which there is an accumulation of fluid in the tympanum, or the membrana tympani is much depressed, in the former instance by the fluid in the cavity acting upon the oval or round window, or both, and in the latter instance by the plate of stapes being forced against the membrane in the oval window. In both cases the terminations of the acoustic nerve suffer a mechanical irritation which gives rise on the one hand to subjective noises in the ear, and on the other hand annuls the perception of certain tones. Extreme pressure upon these parts may so interfere with intra-labyrinthine vibrations as to completely obliterate bone-conduction from the tuning-fork.—[N. Y. Med. Journal and Ob. Review.

Cold Applications in Typhoid Fever.—Dr. Flint, in a lecture at Bellevue, thus summarizes the results of a number of cases:

From the study of these cases it may be conceded:

1. That by the application of cold water externally in cases of typhoid fever, the temperature of the body may, after a variable time of the continuance of the employment, be reduced to 102° or lower.

2. After a period varying very much in different cases, and, also, at different times in the same case, the temperature, as a rule, again rises as high as, or higher than, before the reduction.

3. Repeating the employment of cold as often as the axillary temperature exceeds 103°, the number of repetitions required in different cases is extremely variable.

4. The sponge bath and the wet sheet with sprinkling may be employed to the exclusion of the bath-tub in the antipyretic treatment in cases of typhoid fever as well as of other febrile diseases.

5. These modes of employing cold water may be continued sufficiently long for the reduction of temperature to 102° or lower, and repeated as often as may be required, without risk of any immediate injury, and the study of these cases furnishes no ground for supposing that a liability to complications or accidents is thereby increased.

6. Reduction of temperature by these modes as often as it rises,

in the axilla, above 103°, improves the condition of the patient. The cases now studied do not afford proof, either that the fatality of typhoid fever, or that its duration is thereby diminished. The study of these cases, however, renders it possible that this proof would be afforded by a larger collection of cases.

During the period that the cases now studied were treated, seven hospital cases were recorded in which antipyretic treatment was not employed. In most of these cases the temperature did not rise above 103°, and it was for this reason that the treatment was not employed. Of these seven cases three were fatal, but I need not say that it would be unfair to draw any deduction from the contrast as regards the proportionate number of fatal cases. It is well known that, in general, resistance, toleration, and recuperation are not as well exemplified within as outside of hospitals. Moreover, in cases of typhoid fever, patients are not admitted into hospitals until some days after the commencement of the disease. The clinical test of therapeutical measures, as far as fatality is concerned, is therefore best afforded by the study of cases in private practice.

7. The results of the analysis of these cases, although not sustaining the statements of Liebermeister and others respecting the controlling influence of the employment of cold externally in cases of typhoid fever, yet not only show this method of antipyretic treatment to be safe, but afford encouragement to employ it with the expectation of diminishing the severity of the disease and its danger to life.

Cough and Phthisis.—Prof. Bartholomew (Med. News and Abstract) says: I come now to another symptom—cough—which usually taxes severely the resources of the physician. As cough prevents sleep, destroys rest, and is exhausting, the patients are clamorous for relief. Much coughing is a peculiarly severe form of exercise, and demands suppression or amelioration for this reason. The expedients are almost past computation—a sure indication both of failure and intractability. The reflex irritation proceeding from the fauces may be allayed by a gargle of bromide of potassium, by brushing over the mucous membrane a one per cent. solution of carbolic acid, or by atomizing a solution of morphia. The combination of diluted hydro-bromic acid, and spirit of chloroform proposed by Dr. Fothergill, does very well sometimes, but in general is disappointing. In fact, there are no efficient substitutes for opium, and we must turn to this when the cough is severe and persistent. The most generally useful of the preparations and derivatives of opium is codeia. The grounds of its utility in cough are these: it has a selective action on the pneumogastric nerve, allaying irritability of its end organs; it is calmative and hypnotic, and as compared to morphia is less excitant and less nauseant. Codeia is adapted to those cases in which the cough is largely nervous. It may be combined with strychnia when there is vomiting, and with atropia or picro-toxine when the sweats are profuse. The following are examples: R. Codeiæ sulph., gr. x.; ext. hyoscyami, ℈j. M. ft. pil. no. xx. Sig. One pil

every four hours. R. Codeiæ sulph, gr. xvj., strychniæ sulph., gr. j; atropiæ sulph, gr. ½; acid sulph. dil. ʒ ij; aquæ ʒ vj. M. Sig. Ten to fifteen drops three times a day. Morphia may be substituted for codeiæ in any of these prescriptions, by reducing the quantity one-half. Carbolic acid exercises no little influence over cough, expectoration, and fever, and is most serviceable in allaying the reflex vomiting. It is best given in solution, as follows: R. Acid. carbolic; gr. viij, aquæ laurocerasi, aquæ, aa ℥ i. M. Sig. A teaspoonful every four hours. Carbolic acid is especially indicated in the fetid expectoration of bronchiectasis. In the cough of fibroid lung, and of the stage of deposit before softening in caseous pneumonia, I have had excellent results from the administration of iodide of ammonium in the wine of tar. R. Ammonii iodid. ʒ ij; vini, picis liquid, syrp, tolu aa ℥ ij. M. Sig. A teaspoonful.

Night Sweats.—This is both an interesting and an important subject. It is interesting because of the striking results obtained by some new contributions to our therapeutical resources, and important because of the baleful influence of the sweats over the progress of the disease. If the sweats are profuse, there is an actual loss of material, of salts and organic matter, which represents waste of tissue. It is highly important to check this waste and preserve the material for the nutrition of the body. Until the recent observations of Dr. Murrell proving the great value of picrotoxine, atropia had the first place as a remedy for the night sweats of phthisis. I have usually given atropia with strychnia and morphia for the triple object of arresting the sweating, allaying cough, and stopping the reflex vomiting. It is not a little remarkable that the temperature is generally reduced by the combined use of these remedies. I have preferred to give the atropia with regularity three times a day, because of an influence over the progress of the disease, which seems to be independent of its anhydrotic power, and which can be explained only on the supposition that it has the power to improve the nutrition of the lungs. Its introduction into use as a remedy for phthisis has put a new phase on the prognosis of cases of caseous pheumonia, not advanced to the stage of softening. Some practitioners prefer to give atropia in a single full dose (1.60th of a grain) at bed hour, but the results are better, if given in a small quantity (1.200th of a grain) the effect being distributed through the day. The susceptibility to the action of atropia varies greatly, and as immense discomfort may be produced by a medicinal dose, care is necessary to avoid unpleasant results. Recognizing the importance of the influence which atropia appears to have on the trophic system of the lungs, I have had patients take it for years at a time, and without any ill effects.

The success of picrotoxine as an anhydrotic has been quite decided. Dr. Murrell finds that so small a quantity as the 1.200th of a grain, at bed hour, may arrest the sweating for a number of days. Although possessed of properties somewhat like those of strychnia, it is by no means so powerful, and may be given by the

stomach up to 1.30th of a grain. Dover's powder, and, oddly enough, pilocarpine occasionally, acts very decidedly as an arrester of perspiration—a capital illustration of certain kinds of physiological antagonism. Take it all in all, atropia should be preferred in most cases, because of its apparent influence over the nutrition of the lungs. Whilst atropia is given, three times a day, picrotoxine may be exhibited at bedtime, if the effects of the former is inadequate.

Does Vaccination Protect?—It is becoming somewhat tiresome to have to reiterate the truths about vaccination. And it will sometimes occur to us that the best way, after all, would be to leave the question alone, and let the people find out the facts for themselves. Why should the doctor worry himself? If the people do not and will not believe in vaccination, why not drop our quills, and, having vaccinated ourselves and families, let the disease work away in its old-fashioned seventeenth century style. In 1821, half of the city of Boston lay sick with the small-pox. Would not the return of such a visitation be better than any pamphlets or statistics?

We present here a very few of the facts and figures upon which this universal agreement is based. It should be remembered, however, that aside from statistical proof, nearly every physician, at some time during his life, gets personal evidence of the efficacy of Jenner's discovery.

Previous to the introduction of vaccination, the annual mortality from small-pox throughout Europe was about three thousand to every million inhabitants. During the forty years subsequent, the mortality from the same cause was reduced in Sweden to 158 per million; in Westphalia to 114; in Bohemia, Moravia, and Austrian Silesia, to about 200; in Copenhagen to 286; in Berlin to 176; in England to 200.

In 1853, the Epidemiological Society received two thousand letters from medical men, affirming their belief, from personal experience, in the protective power of vaccination. Dr. Simon obtained similar answers from five hundred and forty-two to whom letters were addressed.

One observer, Marshall, has shown that among 757 persons exposed to small-pox, 231 had been vancinated, and of these latter only 24 took the disease. All the remainder, except seven, were infected. In 1871, an anti-vaccination excitement was fomented in England, and Parliament undertook to investigate the question. A large committee was appointed, and testimony taken from every quarter. The result was an overwhelming refutation of the points claimed by the anti-vaccinationists.

In the Franco-Prusian war, an epidemic of small-pox arose among the unvaccinated inhabitants of Brittany. It spread among the French soldiers, and destroyed 23,000 of them. The Prussian army, which was frequently and extensively exposed, and was larger than the French, lost only about 250 persons by the disease The Prussian army was thoroughly vaccinated, the French was not. In the whole Prussian army for twenty years, though often

exposed, only four fatal cases of small-pox occurred among the revaccinated.

There are a few things which have to be borne in mind when arguing for vaccination:

1. Vaccination is protective only when the virus is good, and has entered and affected the system.

2. There is a very small number of persons who will take small-pox if exposed, whether they have been vaccinated or not. If vaccinated, however, most of these will have the disease less severely.

3. Vaccination protects in most cases only for a certain period of years, and revaccination is necessary.

4. Vaccine lymph may possibly deteriorate after passing through the human system many times. This deterioration of humanized lymph has probably taken place in England, and perhaps elsewhere in Europe.

5. Small-pox varies in malignancy with the epidemic. There is no evidence, however, to prove that small-pox is any less malignant now, on the whole, than it was eighty years ago.

The above facts have to be considered in passing judgment upon the so-called statistics of anti-vaccinationists.—[Medical Record.

J. J. Connor, M. D., of Palmer, Ill., reports a case in the Medical and Surgical Reporter, where a woman, being taken with an epileptic fit, fell into a shallow creek and was drowned.

The woman was about eight months and twenty days gone in pregnancy. As near as could be determined, the woman fell into the creek before eleven o'clock, A. M., and when seen by the doctor a few minutes after twelve M., was cold and dead; the fœtal heart-beat could at this time, be plainly heard and the movements of the child distinctly felt, and at 1:30 P. M., when the doctor left, the heart-beat and movements were as appreciable as when he first saw her, and the woman who laid the deceased out, "said they felt the fœtal movements up to near 2 P. M."

This case is very interesting as it is generally believed, by the profession, that the fœtus must die very shortly after the mother's heart ceases to beat, yet from this case it appears that there are instances where it may live for a considerable length of time. The doctor's excuse for not delivering the child at once, on discovering that it was alive, that the principal men of the village and an irregular practitioner of medicine said "that it would never do in the world, and that the child would not live anyway"—is a very lame one.—[N. W. Lancet.

The Immediate Arrest of Bleeding from the Nose.—John Kent Spender, M. D., in British Medical Journal, says: An improved instrument is described in Mr. W. Spencer Watson's book on Diseases of the Nose and its Accessory Cavities. It "consists of a gum elastic tube about five inches long, with lateral perforations near the end, and covered with thin caoutchoue membrane in the form of a spirally twisted bag for the last three or four in-

ches of its length. To use it the membranous bag is smoothly folded over the continued tube, and the whole being oiled (diluted glycerine is better) is passed along the floor of the nares till it reaches the pharynx. The bag is now inflated, . . . and if a stop-cock is fitted the air is kept in by turning it as soon as sufficient tension is obtained." The cavity of the twisted bag could be injected with water if it were desired, but I have never found this necessary. When I recolleet what "bleeding from the nose" was in old days, I cannot be too thankful to Dr. Rose for his simple and effective invention. To be called to an obstinate accident of this kind, especially when other medical men had failed, was enough to make one sick at heart from the possibility of adding another failure to the dreary history; and then there was the consciousness that delay might mean impaired health or even death to the victim. The victory is half won when a man is armed with an apparatus which he knows is sure to succeed; and I am now speaking of cases in which he wishes to succeed, and which are not forms of natural blood-letting to be encouraged. The object of this brief communication is to recommend Dr. Rose's instrument for (1) facility of introduction; (2) the extent and evenness of the inflated area; and (3) the possibility of its remaining in situ for thirty-six or forty-eight hours, when it may be gently removed, and the hemorrhagic nostril can be syringed with some cold astringent fluid for purposes of cleanliness and the washing away of the blood debris.—[Chicago Medical Journal.

Expressing the Placenta.—The method at present in vogue of expressing the placenta is associated indissolubly with the name of Crede, for though the value of friction, of kneading, and compression was appreciated, as their writings show, by Mauriceau, Robert Wallace Johnson, Joseph Clarke, Busch, Mayer, and others, it remained for Crede to elevate placental expression to the rank of a recognized procedure of obstetric practice.

Crede's method consists essentially in applying at first light and afterward stronger friction to the fundus of the uterus till an energetic contraction is obtained; at its height the uterus is grasped so that the fundus rests in the palm of the hand with the fingers to the front. The exercise of circular compression forces the placenta from the uterus, or in case of failure the process may be repeated until the object is accomplished. It is true that the expulsion of the placenta will, as a rule, occur spontaneously. The unaided uterus is, however, liable to relax and become the source of hemorrhage; or where the delivery does not take place speedily, it may on the other hand close down so as to imprison the placenta within its cavity. The great merit of Crede's method is that by maintaining retraction it prevents hemorrhage, and by promoting speedy expulsion it guards against the dangers of retention When systematically practiced the bugbear known as adherent placenta is the rarest of accidents.

The practice is not difficult and is devoid of danger. To be successful, however, expression should be practiced only during a contraction, and the propulsive force should be directed from the

fundus downward in the axis of the uterus. Spiegelburg lays great stress on exercising compression of the uterus from the moment the head emerges from the vulva, and not waiting until the delivery of the child is ended. By so doing general contractions are maintained and the detachment of the placenta promoted.—Lusk's new work on Midwifery.—[Medical Weekly.

Cutaneous Eruptions Caused by the Use of Certain Medicines.—(Giron. It. del' Malatt. Vener e del' Pelle, June, 1881).—Auspitz, in his valuable "System der Hautkrankeiten," gives the following as the secondary result of an angioneurasis:

QUININE.—(*a*) Scarlatinous erythema; (*b*) morbillious papular erythema; (*c*) hemorrhagia and purpura; (*d*) wheals, œdema, pruritus.

CINCHONA, BELLADONNA, STRYCHNINE, AND STRAMONIUM.—Manifestations like papulæ sudorales.

DIIGTALIS.—Erythema after a few days' use.

ACONITE.—Vescular exanthema.

SANTONINE.—Vesicles, wheals.

RHUS VENENATA AND TOXICODENDRON.—Vesicular eruption.

OPIUM AND MORPHINE.—Erythema, papular eruption with much desquamation and pruritus.

PILOCARPINE AND ATROPIA(?)—Augmentation of the perspiration.

PHOSPHORUS.—Purpura.

PHOSPHORIC ACID.—Bullous eruption.

MERCURY (internally).—Erythema, eczema.

ARSENIC.—Erythema and papules, eczema.

CARBOLIC ACID.—Erythema, vesicles or wheals.

SALICYLIC ACID.—Purpura, vesicles with laryngeal catarrh; wheals.

CHLORAL HYDRATE.—Erythema (well-colored), pruritus, desquamation; purpura and petechiæ; eczema with crust and scab.

BALSAM COPAIBA, CUBEBS, TURPENTINE.—Vesicles, erythema, eczema.

COD-LIVER OIL.—Acne.

IODIDE OF POTASH.—Papules; vesicles and bullæ; pustules and ecthyma; eczema; echymosis and purpura.

BROMIDE OF POTASSIUM.—Papules and pustules; deep tubercles and ecchymosis; vesicles; ulcers.—[Virginia Med. Monthly.

Hypodermic Injection of Water in the Treatment of Pain.—In the Gacete Medical of Venezuela, Dr. Ponte relates his experiences in several instances in which he employed water hypodermically for the relief of pain. The first case was that of a boy who was suffering from an intercostal neuralgia, so severe as to almost endanger the life of the patient by interference with respiration. Not having any morphine with him, the author determined to work upon the imagination of the sufferer by injecting pure cold water over the location of the pain, a procedure which, much to his astonishment, was followed by permanent relief. Impressed with this fact, Dr. Ponte resolved upon further

experiments. The next case was one of toothache. In order to eliminate the imaginative element, he informed the patient of the treatment to be employed, for the execution of which permission was rather reluctantly given. An injection practiced upon the side of the face nearest to the pain, was followed by considerable ardor, but in less than a minute the odontalgia had subsided. Animated with these results, he employed cold water injections in a variety of different pains, always with happy issue, even in cases where morphine had been the drug previously administered. Another patient had been suffering nine years from intense gastro-intestinal neuralgia, which baffled all remedies. The pain came on after meals, and its violence was such as to cause her frequently to faint. When first seen by the writer, she was utterly prostrated. Two injections relieved the pain, and subsequent tonic treatment restored her to health. Several hundred cases have been treated in the manner described, with good results. No explanation is given as to the action of the remedy.—[New York Medical Record.

The Specific Germ of Gonorrhœal Pus.—After many unsuccessful attempts, a specific microbe has been discovered in the pus of gonorrhœa. The Annales de Dermatologie has a synopsis of a recent work by M. Weiss. The pus examined came both from men and women, and was taken with all the necessary precautions. In every case microscopic examination showed in pus corpuscles and epithelial cells little bodies, in some cases isolated and in others united in groups, and arrayed in a peculiar manner.

These bodies, of which the author gives a minute description, have always a characteristic appearance. M. Weiss examined the pus from thirty-two patients, and each time he found the parasitic forms. As a control experiment he examined the pus from cases of non-specific urethritis, balanoprostatites, bubo, leucorrhœa, etc., and never could discover the elements which he looks upon as characteristic of gonorrhœa. There still remain to be made culture experiments, which have not yet been begun.

M. Weiss calls especial attention to the action of hypermanganate of potassium on the parasite. In all cases of vaginal gonorrhœa treated in the service of M. Spillman, of Nancy, by means of injection of this salt, the parasites diminished rapidly in number, their enveloping zone disappeared and changes in appearance took place which showed either their destruction or at least great alteration as a result of the application of the salt. The strength used was 0.25 centigrammes to 1000.—[Jour. de Med. et de Chir. pratiques, November, 1881.—Exchange.

Hypodermic Injection of Quinine.—For injection the following solution was made: Thirty grains of sulphate of quinine, fifteen grains of tartaric acid, and half an ounce of water. Twenty minims of this were injected every two hours in a case of intermittent fever. The patient had been a resident for some years in the West Indies, and when there several times had ague. He stated that he knew when it was going to recur since he returned

to this country, and that he had been ordered to take quinine. This, however, always occasioned vomiting, and he was obliged to desist and endure the fever, which lasted forty-eight hours. The injection which was given caused no pain, and it was followed by no abscesses. It seemed to have the effect of warding off the attack, according to the man's statement. On several occasions this method of administering quinine has been tried. I can testify as to the pain being nil, and to the absence of any inflammation. Dissolved in any other acid quinine is a painful and troublesome agent, and its use cannot be recommended. In cases of typhoid fever I would not hesitate to use it hypodermically, and should imagine that good results would ensue, both in reducing the temperature and in preventing any derangement of the digestive organs, apt to be induced by large doses administered by the mouth.—[Therapeutic Gazette.

On the Indications for the Use of Morphia in Pureperal Eclampsia.—Dr. McFarlane, of Toronto, who has found morphia, administered hypodermically, to be a most efficient remedy in the treatment of puerperal convulsions, gives, in the Canadian Journal of Medical Sciences, for December, 1881, his reasons for regarding it as especially indicated in this disease. He first points out what he regards as the true cause of the convulsions, viz., anæmia of the brain, with increased irratability and general exhaustion of the entire nervous system, resulting from the disturbance of the circulation produced by the increased labor required of the heart in carrying on the fœtal circulation. In morphia we have a drug which produces an increased flow of blood to the nerve centres, and by its soporific effect allows the brain to rest while increased power is gained to carry on the nervous functions of the body. The control which morphine exercises over the disease, both in the preliminary stage as well as when the convulsions actually set in, is so prompt and decisive, he says, as to convince the most skeptical after having given it a fair trial. To give any preparation of opium in this disease by the stomach, he regards as of little if any use, as the sickly condition of the organ is such that the medicine is not absorbed in time to be of any benefit to the patient, and moreover, the remedy should be given early and in sufficient quantity (not less than from one-half to a grain) to control the convulsions at once.—[The Medical and Surgical Reporter.

Manipulation of the Scapula in Dislocation of the Shoulder.—The patient being completely stripped as far as the upper part of the body is concerned, is either made to lie on a couch or a bed, or he can be, from my last experience, easily manipulated in a sitting posture. Take for example dislocation of the left shoulder. The left wrist is grasped with the left hand, and the arm gently abducted; the fingers of the right hand are then firmly pushed between the head of the humerus and the wall of thorax, when with a sweep of the arm across the body the head of the bone is easily lifted and slides into the glenoid.—[E. T. T., in British Medical Journal.

Calomel and Chlorate of Potash.—A correspondent of the Medical and Surgical Reporter relates the following to prove the incompatibility of the two compounds:

C. W., aged four years, suffering from an attack of pharyngitis (acute). I ordered a purgative dose of calomel, and at the same time a prescription containing tinctura ferri chloridi and potass. chlorat., the latter not to be given till the purgative effects of the former had been obtained; but contrary to my directions, in about an hour after giving the calomel they gave a dose of the iron and potash.

A short time afterwards I was summoned, and found my little patient suffering from all the symptoms of poisoning by corrosive sublimate, but with no salivation, nor did any appear subsequently. I administered the usual remedies for such poisoning, and the recovery was rapid.

[The addition of the tincture of iron entirely changes the aspect of the question. The tincture is always decidedly acid, sometimes quite strongly so. The presence of a powerful mineral acid like muriatic acid will cause chemical decompositions which would not occur otherwise.]—[Druggists' Circular.

Rattlesnake Poison.—Dr. L. Filho has published the following results of his experiments on the poison of the rattlesnake in the Archivos do Museu Nacional do Rio de Janeiro: 1. The poison of Crotalus horridus acts upon the blood by destroying the red blood-corpuscles, and by changing the physical and chemical quality of the plasma; 2. The poison contains some mobile bodies similar to the micrococcus of putrefaction; 3. The blood of an animal killed by a snake's bite when inoculated to another animal of the same size and species causes death of the latter within a few hours, under the same symptoms and the same changes of the blood; 4. The poison can be dried and preserved for a long time without losing its specific quality; 5. Alcohol is the best antidote to the poison of Crotalus horridus known at present.—[Louisville Medical News.

Dr. R. Fowler, of Ednaville, Texas, writes in Southern Clinic as follows: A case of a little two-and-a-half year old child was to-day presented for treatment. The case is unique; it consists of a small worm under the skin, crawling around the body; and as proof of the truth of it, in October last Dr. Emanuel took one out of the same child. The father says it was of a white color, with a flat, black head, and about two-and-a-half inches long. It comes near the surface at times, and then recedes away. You can readily see the track beneath the skin by the ecchymosed appearance. It was on the shoulder yesterday morning. I could easily destroy it by hypodermic injection, but I wish to get it out entire, and send to some entomologist for identification. Do you know of any such case on record? And what entomologist or microscopist must I send it to? The child is perfectly healthy every way; is fat, and it gives him no pain or trouble. But how came this worm there? How did it get in the cellular tissues?

SCIENTIFIC ITEMS.

The Musquito as a Carrier of Disease.—A correspondent inquires whether there is "anything in the newspaper statement that musquitoes are the agents for introducing dangerous parasites into the human blood." We are pained to be obliged to say that there is good ground for this addition to the disreputable "record" of the insect. The discovery was made a year or more ago—we cannot give the exact date—and has since been fully confirmed by further investigation. Dr. Meisoner of Leipsic, in a German medical magazine, has lately summed up what is known of the parasitic infection of the blood, and the following is an abstract from what he says of the *filiaria sanguinis hominis*:—This parasite has been very thoroughly studied by Manson, of Amoy, China, and Bancroft of Brisbane, Australia. The filiaria, while it may at times be present in the blood without giving rise to any symptoms, at other times appears beyond question to be the cause of ehyluria, elephantiasis, etc. The mode of its action would seem purely mechanical. The parasite in the blood or lymph channels and its accumulation at a given point gives rise to lymphorrhagia or inflammation. Two curious facts have recently come to light regarding the parasite. One is that the musquito acts as a carrier; sucking the filaria with the blood of an affected person, it afterwards deposits the ova or embryos, which have meantime hatched, in the water when it lays its own eggs. These embryos are then swallowed in the drinking-water by another victim; and so the circle of disease is completed. Another and a very curious fact regarding the filaria was lately discovered; this is that it is a nocturnal parasite. During the day the filiariæ lie dormant at some point in the victim's circulation, but at night they sally forth and rove the currents of the blood the night long.—[Boston Journal of Chemistry.

Telephone Sound of Voices.—It is noticed that the telephone gives a particular accent to the peculiarities of voice. A growling voice is surlier, a sharp voice more sharp; like the photograph, it makes matters worse. There is nothing like the sun picture for bringing out the hidden peculiarities of a face. They may be hidden in real life, in trained expressions, or favor of complexion, but the photograph is sure to seize them, almost to caricature. So the telephone, too, has a trick of making the voice "a little more so" than it is, in whatever direction its defects lie. This playfulness of the telephone might stand in its way sometimes, if it should come generally into use for critical purposes; but does not appear to have been in Briggsville, Mass., where a croupy child was brought to cough into a telephone so that the doctor, some miles away, at North Adams, could hear and prescribe for it It probably made the case out at least as bad as it could for the little sufferer, who was speedily relieved by the return prescription over the wire.—[Ex.

Ancient Division of Time.—The German Heusler has suggested on the same point that the ancients did not divide time as we do. Previous to the age of Abraham the year, among some people of the East, was only three months, or a season; so that they had a year of spring, one of summer, one of fall, and one of winter. The year was extended so as to consist of eight months after Abraham, and of twelve months after Joseph. Voltaire rejected the longevity assigned to the patriarch of the Bible, but accepted without question the stories of the great age attained by some men in India, where, he says, "It is not rare to see old men of one hunered and twenty years." The eminent French physiologist, Flourens, fixing the complete development of man at twenty years, teaches that he should live five times as long as it takes him to become an adult. According to this author the moment of a complete development may be recognized by the fact of the junction of the bones with their apophyses. The junction takes place in horses at five years, and the horse does not live beyond twenty-five years; with the ox, at four years, and it does not live over twenty years; with the cat at eighteen months, and that animal rarely lives over ten years. With man, it is effected at twenty years, and he only exceptionally lives beyond one hundred years. The same physiologist admits, however, that human life may be exceptionally prolonged under certain conditions of comfort, sobriety, freedom from care, regularity of habits, and observance of the rules of hygiene; and he terminates his interesting study of the last point ("De la Longevite humaine") with the aphorism, "Man kills himself rather than dies."

The Dentaphone.—In answer to question No. 275 regarding the "Dentaphone" will say: I have used one for about 18 months. Am quite deaf and have false teeth; yet with the dentaphone I hear quite well; in fact can do business nearly as well as ever. It does not work on all alike, however. In some the nerves from the teeth or gums are paralyzed, so that no sound is conveyed. If the nerves are perfect, any one will be greatly benefitted after one or two weeks practice. To tell whether the nerves are alive, take a small stick a foot long; place one end on the sounding board of a piano, the other against the teeth. If it sounds louder on striking the piano keys, you can learn to use the dentaphone.—W. W. L., Kansas City, Mo.—[Drug Cir.

The Pennsylvania Railroad has in use an automatic track tester which discovers faults in the track not ordinarily appreciable to the eye, and makes a record of them which indicates their precise locality, and all this while the machine is passing over the road at from fifteen to twenty-five miles an hour. It has the external appearance of a baggage car, but inside is fitted up with self-registering apparatus, electric clock, etc. A bad joint between the rails registers itself by the jolt it causes to the delicately hung car. Errors of level in the track are recorded by pencils on ruled paper, and so nicely arranged that the variations of an eighth of an inch are made manifest.—[Mechanical News.

PRACTICAL NOTES AND FORMULÆ.

Preston's Salts greatly vary in composition. The following is given in Wood and Bache:

1.	Oil of cloves	½ drachm.
	Oil of lavender	1 drachm.
	Oil of bergamot	2½ drachms.
	Strong solution of ammonia	10 ounces.

Fill the smelling bottles with coarsely bruised carbonate of ammonia, and add to the salt as much of the aromatic solution as it will absorb. The subjoined gives also very good smelling salts. It is in several respects superior to the above, and is not so generally known as it deserves to be:

2.	Oil of lemon	1 drachm.
	Oil of lavender	½ drachm.
	Oil of cloves	5 drops.
	Stronger ammonia	15 ounces.

Fill the smelling bottles with crystallized sulphate of potassa, and pour into each bottle as much of the aromatic ammonia as the salt can retain without spilling. This makes a much prettier looking smelling salt than carbonate of ammonia, and as it does not cake together like it, the bottle need not be emptied when the ammonia has evaporated. All that is necessary is to fill it up again with the aromatic ammonia. The mixture is also more pungent, and its flavor appears to be more generally acceptable to the majority of customers.—[Drug. Circular.

Anise-seed Soothing Cordial.—

Oil of anise-seed	3 drachms.
Oil of coriander	5 drops.
Deodorized tincture of opium	17 fluid ounces.
Alcohol	19 pints.
Syrup	20 pints.
Water	40 pints.
Cudbear	2 to 3 drachms.

Mix together, and after macerating forty-eight hours, filter through paper. Each fluid ounce will contain very nearly half a grain of opium, equivalent to about one-fourth the strength of paregoric. The cudbear is only added, as a precaution, to impart a distinctive color, and may be omitted.—[Druggists' Cir.

Cathartic Enema.—

R	Senna pulv Magnesii sulph	aa ℥ j; 30.00 gm.
	Aquæ bullentis	Oij; 946.38 fl. gm.

M. Steep for twenty minutes and strain; then inject the whole gently with the hips raised.—[New Eng. Med. Monthly.

℥

Formulæ Used in the New York Hospital—For external use

ECZEMA DRYING SALVE.

℞ Plumbi glycerat..... ℥ j
Ungt. zinci oxid..... ℥ j

KELLY'S TONIC.

℞ Tr. nucis vomicæ.....f. ℥ ij
Acid. nitromuriat. dil.....f. ℥ iij
Tr. cinch. co .....f. ℥ jss
Tr. gent. co.....ad f. ℥ iij

Dose, two drachms in water, three times a day.

HAMILTON'S TONIC.

℞ Strychniæ sulph..... gr. viij
Cinchonidiæ sulph..... ℥ j
Tr. ferri chlor..... ℥ vj
Syr. zingiberis,
Acid. phosphoric. dil.....aa ℥ xvj

Dose, one teaspoonful three times a day.

DR. DRAPER.

No. 1.

℞ Acidi citrici,
Ferri et quiniæ cit.....aa ℥ iv
Aquæ,
Syr. limonis.....aa f. ℥ ij
M.

No. 2.

℞ Potass. bicarb..... ʒ iv
Aquæ.....ad ℥ iv

M One fluid drachm of each in two drachms of water, to be mixed at the time of taking.

ANTI-RHEUMATIC MIXTURE.

(Mistura Antiarthritica.)

℞ Potassii iodidi..... ℥v
Vini colchici sem..... ℥ j
Tr. cimcifugæ rac..... ℥ ij
Tr. stramon..... ℥ ss
Tr. opii camp..... ℥ jss

M. Dose, ℥ i. three times a day.

OINTMENT OF IODOFORM.

℞ Iodoform..... ℥ j
Vaselinæ..... ℥ j

Reduce the iodoform to powder and add to the vaseline; heat by water bath till dissolved.

COMPOUND IODOFORM OINTMENT.

℞ Pulv. iodoform;
Acidi tannici..... aa ʒ j
Vaselinæ..... ʒ j

OINTMENT OF TAR AND OXIDE OF ZINC.

℞ Ungt. picis..... ʒ iv
Zinci oxidi..... ʒ j
Cerat simpi..... ʒ jss

Aphrodisiacs.—

According to Dr. Bartholomew, the following are distinctly aphrodisiac combinations in functional generative debility.

℞. Ergot. extract. aquos..... ℈j.
Sanguinariæ pulv..... gr. ij.
M. For twenty pills. One three times a day.
Or,
℞. Tinct. sanguinar..... ʒ iij.
Stillingiæ ext., fluid..... ʒ v.

M. Fifteen to twenty drops in water, thrice daily.—[Druggists' Circular.

Dewee's Carminative.—The folllowing is the generally accepted formula for an old and popular preparation:

Carbonate of magnesia.....	12 drachms.
Sugar.....	3 ounces.
Tincture of assafœtida.....	3 fluid ounces.
Tincture opium.....	1 fluid ounce.
Water.....	24 fluid ounces.

Triturate together until they are mixed.

Zimmerman's Decoction.—This is an old preparation, which is directed to be made as follows:

Rhubarb.....	1 drachm.
Cream of tartar.....	1 ounce.
Barley.....	1 ounce.
Water.....	2 pints.

Boil for fifteen minutes, strain, and add enough simple syrup or sugar to sweeten the decoction.

For Diphtheria.—Dr. Guttman's prescription:

℞ Pilocarpin muriate..... gr. 1½,
Pepsin..... ʒss,
Acid muriatic..... gtts. x,
Aqua..... ʒviij.
M. Teaspoonful every hour.

EDITORIALS AND MISCELLANEOUS.

THE splendid house of Wm. R. Warner & Co., has a new advertisement in this issue. Don't fail to read it.

NON-HUMANIZED VACCINE VIRUS.—See advertisement of H. M. Merrell & Co., Cincinnati, O., in relation to genuine vaccine virus.

PARKE, DAVIS & CO.—See the new advertisement of this large and excellent house in this issue of the Journal. No end to the push and energy of this establishment.

REED & CARNRICK'S advertisement of Maltine should be carefully examined. The house is a reliable one, long established and all of their preparations of superior quality.

SEE advertisement of Nestle's Milk Food. This article comes highly recommended and will be found well adapted to infants and invalids as an easily digested article of food.

THE advertisement of Fellows' Hypophosphites should be carefully examined. It is an excellent preparation, possessing stimulant, tonic and nutritive properties of a high order—especially adapted to consumptives and low nervous states of the system.

WE invite attention to the advertisement in this issue of the Anglo-Swiss Milk Food for infants and invalids. This preparation has attained to high reputation and practitioners who so often need such articles in practice would do well to give it a trial.

SMALL-POX.

The unusual prevalence of small-pox in the United States during the last two or three months, especially in the Northern and Northwestern sections of the Union, has been made sufficiently known through the newspaper press of the country. The disease which at first was alarmingly threatening seems now to be somewhat under control, and if the work of vaccination goes on as it should, we may expect that the disease will soon disappear altogether. We have been questioned in relation to the choice between the bovine and the *humanized* virus, etc.

The *bovine* from healthy young heifers is now generally preferred. Yet many regard the humanized virus, one or two removes from the cow, through healthy young subject, as preferable, and less apt to give rise to erysipelatious or excessive inflammation.

The *bovine* virus as cultivated in the cow and obtained from the vaccine farms—several of which exist in the Northern sections of

the Union—is not procured, as many suppose, from inoculating the cow with the virus of small-pox, but is propagated by the insertion of cow-pox lymph from cow to cow.

Nor is it now believed that the original cow-pox, as first described by Jenner, is the result of small-pox or varioa in the cow, but is a variety of the same species as variola.

If it is small-pox in the cow, it is certainly modified in some mysterious way by the unknown method of its communication to the animal, as efforts to produce it by inoculation have not been successful. While a few experimenters have claimed that such was the case, the large proportion of those who have tried it have found that the virus obtained by inoculating the cow with small-pox lymph is not the same as that obtained from the natural vaccina or cow-pox, but is unsafe and liable to produce small-pox instead of vaccina.

Upon the whole, then, we regard the natural cow-pox lymph, or the humanized virus not too far removed, as the best.

TRANSACTIONS MEDICAL ASSOCIATION OF GEORGIA.

Thirty-second annual session, at Thomasville, Ga., April, 1881. Edited by A. Sibley Campbell, M. D., Secretary Augusta, Ga.

We are indebted to Dr. Campbell, the secretary, for a copy of the above, a book of 314 large octavo pages, gotten up in large plain type, neatly arranged illustrated and well executed in every department, evincing great skill, taste, energy and ability on the part of Dr. Campbell.

In addition to the business proceedings of the society, it contains the by-laws and constitution; a roll of its living and deceased members, President LeHardy's excellent address and a number of able and interesting papers. We regret the want of space to make special mention as to the merits of the several articles. The following are the names of the contributors to the volume, to-wit:

J. C. LEHARDY, M. D., President

R. J. Nunn, M. D.; Thomas R. Wright, M. D.; Thomas H. Kenan, M. D.; J. G. Hopkins, M. D.; W. H. Philpot, M. D.; A. Sibley Campbell, M. D.; Charles W. Hickman, M. D.; S. B. Hawkins, M. D.; DeSaussure Ford, M. D.; S. H. Stout, M. D.; W. F. Westmoreland, M. D.; K. P. Moore, M. D.; T. S. Hopkins, M. D.; Henry F. Campbell, M. D.; T. O. Powell, M. D.; J. M. Toner, M. D.; L. B. Alexander, M. D.; H. H. Carleton, M. D.; P. H. Wright, M.D.; A. A. Smith, M.D.; A. G. Whitehead, M.D.

The following are the officers of the Association:

Wm. F. Holt, M. D., of Macon, President.
Eugene Foster, of Augusta, } Vice-Presidents.
T. M. McIntosh, of Thomasville, }
A. Sibley Campbell, Augusta, Secretary.
K. P. Moore, Forsyth, Treasurer.
J. R. Duggan, Macon, Orator.

Board of Censors—C. A. Hall, Macon; G. W. Holmes, Rome; W. B. Wells, Red Clay; E. L. Connally, Atlanta; R. J. Nunn, Savannah.

ARKANSAS STATE MEDICAL SOCIETY.

A medical friend has kindly mailed us the Minutes of the State Medical Society of Arkansas, held at Little Rock, on April 7th, 1881.

The officers elected for the year are:

Dr. R. G. Jennings, President; Dr. G. B. Malone, First Vice-President; Dr. D. C. Ewing, Second Vice-President; Dr. H. H. Turner, Third Vice-President; Dr. W. H. Heard, Fourth Vice-President; Dr. L. P. Gibson, Secretary; Dr. Ed. Meek, Assistant Secretary; Dr. A. L. Breysacher, Treasurer; Dr. Jno. Watson, Librarian.

Dr. W. M. Lawrence, the President, in his annual address, thus alludes to the late law in regard to the practice of medicine in Arkansas:—

"It is wonderfully catholic. It accepts all creeds, dogmas and articles of faith. No one is excluded on account of "race, color or previous condition of servitude." Any man or woman, over twenty-one years of age, of good moral character, who has been engaged in a so-called reputable practice for a period of five years, with the county clerk's certificate, is a doctor *de jure*, if not *de facto*, and has a right, whether qualified or not, to practice when and where, or how he or she may please. Emulation in the profession of medicine is as laudable as in any other pursuit of life; but the act suggests nothing beneficial to the old; nothing to encourage a praiseworthy ambition in the young; it gives no merit marks; on the contrary, pulls all down to the same obnoxious, common level, requiring only a probationary period of five years, without looking even to an ordinary common education. A reputable practice and the reputability of the professional services is to be determined, not by professional men, but by the several county clerks who may be, and most probably are, wholly ignorant of the knowledge and management of cases involving life, health and happiness."

The next meeting of the Society will be on Wednesday next preceding the meeting of the American Medical Association, May, 1882.

BOOK NOTICES.

CACTUS, OR THORNS AND BLOSSOMS.—We have read a copy of this beautiful volume of poems, by Mrs. Elizabeth O. Dannelly. The gifted authoress is a native Georgian, though for many years a resident of Baltimore, and from girlhood has been a valued contributor to various magazines and other periodicals of choice literature. This volume consists of religious, temperance, memorial and miscellaneous poems written in a singularly chaste, sprightly and graceful style, and some of the poems are remarkably beautiful, while others are vivid with the fire of eloquence. The poems are not only beautiful but moral in tone and sentiment, tending to cultivate the heart, and to elevate the thoughts and feelings of the reader.

The authoress is the widow of a Confederate Surgeon, and this,

aside from her personal and literary worth, should commend her to the kindly notice of our professional brethren, and we hope the members of the profession will recommend the work to their friends and acquaintances, especially to the ladies. Publishing & Engraving Co., New York. Price, $1.50. P.

PLAIN FACTS FOR OLD AND YOUNG. By J. H. Kellogg, M. D., Member of the American Public Health Association; American Society for the Advancement of Science; American Society of Microscopy; member of Michigan State Board of Health; Medical Superintendent of the Battle-Creek Sanitarium; Author of numerous works on Health, etc. Published by Segner & Condit, Burlington, Iowa.

The above work treats of the interesting subjects of the "Sexual Relations; Marital Excesses; Prevention of Conception; Infanticide and Abortion; the Social Evil; Solitary Vice; Chapter for Boys; a Chapter for Girls", etc. It is a large work, containing over 500 pages, and though adapted to the popular reader, will be read with interest by the physician. It is moral in tone, and written in a style calculated to do good, very superior to the trashy books which have been published upon these subjects by a class of Quacks who play upon public credulity for the sake of gain only.

ARTIFICIAL ANÆSTHESIA AND ANÆSTHETICS. By Henry M. Lyman, A. M., M. D., Professor of Physiology and diseases of the Nervous System in Rush Medical College, Chicago; and Professor of Theory and Practice of Medicine in the Woman's Medical College, Chicago, Ill. New York: Wm. Wood & Co. Octavo, 338 pp.

The work enters fully into the subject of anæsthesia in all its phases, giving sphygmographic illustrations of the several anæsthetic agents as shown in experiments upon the lower animals. It is a work of much interest and of great practical importance.

A TREATISE ON DIPHTHERIA. By A. Jacobi, M. D., Clinical Professor of Diseases of Children, in the College of Physicians and Surgeons, New York; Physician to Bellevue, Mount Sinai and the German Hospitals, etc. New York: Wm. Wood & Co., 27 Great Jones St., 1880.

An octavo of 250 pages. A very thorough work on the subject of diphtheria, and should be read by every physician.

A TREATISE ON FOOD AND DIETETICS, PHYSIOLOGICALLY AND THERAPEUTICALLY CONSIDERED. By F. W. Pavy, M. D., F. R. S., Fellow of the Royal College of Physicians; Physician to and Lecturer on Physiology at Guy's Hospital. Second edition. New York: Wm. Wood & Co. 1881. P. 402, oc. McGarity & Laird, Agents, Atlanta.

The rapid exhaustion of the first edition and the call for a second, indicates the value of this work. We regard it a very able and valuable book, and one which will be appreciated by the intelligent and progressive practitioner.

RECEIPTED.

1881—Drs. R A Clopton, J C Wallis, W D Hunt, Jno A Allen, P J Parker, W A Dobs, to July 1st., B F Chambless, I T Young, M S Posey.

1882—Drs. J R Green, J C Moody, R Ruff, Jno Gerdine, J R Johnson, J B Wright, J A Agnew, F M Rushing, G M D Patterson, T Quillian, A J Kolb, D B Searcy, J B Vandergriff, Jno Hardeman, F Courtney, A C Crymes, W J McAlpin, J Wilcox, A H Sellers, A T Park, J F Pou, J B Lee, W T Kendall, J E Martin, A B McWhorter, S B Ragan.

SPECIAL NOTICES.

THE art of sugar-coating pills so as not to impair their solubility, but to preserve the composition, keeping it soft and plastic, has acquired for **Messrs. Warner & Co.,** a world-wide reputation. Physicians may rely upon the purity of the drugs used, and upon the mathematical nicety in which their pills, "granules," and "parvules" are divided. Every doctor may be his own druggist, and at the same time save himself the drudgery of it by using WARNER'S preparations. A bottle of Quinine Pills recently sent us by this firm satisfies us that this form is fully maintaining its reputation.—*North Carolina Medical Journal, July,* 1879.

PARKE, DAVIS & CO.—This house stands among the very best in our country as Druggists and Manufacturing Chemists. Enterprising, active and energetic, their large and extensive business continues to increase, both at home and abroad. Their preparations of every kind are put up with great care and exquisite taste, and in respect to business character and reputation this house holds a very high and enviable position.

Listerine.—Dr. J. W. Singleton, the ex-president of S. W. Kentucky Medical Association, thus speaks of this valuable antiseptic in a late number of the Louisville *Medical News:* "I have used LISTERINE in several diseases in which carbolic acid and other antiseptics are commonly prescribed, and I must say, with great satisfaction. As an antiseptic alterative, internally administered, I consider it a very valuable therapeutic agent. In chronic ulceration of the nasal passages (catarrhal or otherwise), the listerinized solution, by injection, spray, or brush, is a most excellent remedy.

"In the suppurative stage of Burns and Scalds, I have had the most pleasant and happy effects to follow its use. I think LISTERINE well worthy of adoption by the profession generally as the remedy in all cases in which carbolized injections are usually ordered, for, in my humble opinion, it really has all the virtues of carbolic acid, with none of its poisonous evils and dangers."

Nervousness Resulting from Intemperance.—We have found **CELERINA** exceedingly valuable in the treatment of nervous headache, nervous exhaustion, nervousness resulting from intemperance. Men, and sometimes women, come to us trembling and apparently exhausted, all from the effects of intemperance. Such cases are approaching delirium tremens. CELERINA is the most appropriate prescription we can give them. A few doses of bromide of potassium may be given, alternated with the CELERINA at first; but after this, for permanent effects, we depend upon the CELERINA.—*American Medical Journal.*

DR. J. S. WELLFORD, of Richmond, Virginia, Professor of Diseases of women and children in the Medical College of Virginia: "I have paid a great deal of attention to urinary troubles, and have frequently and freely prescribed the LITHIA WATER in their treatment with the very best results. In all the forms of the Uric Acid Diathesis, whether as well-formed Gravel or Gout, or in the milder forms of Gouty Dyspepsia or Nettlerash in their various varieties, I know of no Mineral Water which I consider at all equal to that of Spring No. 2.

"In many Skin diseases of old age, dependent on the Uric Acid Diathesis, such as Eczema, etc., this water acts most beneficially."

BEDFORD ALUM AND IRON SPRINGS.—The advertisement of these Springs may be seen in another part of this Journal, and should be carefully read. The Editors have tested its virtues. It is an excellent remedy in hæmoptisis, or as an anti hemorrhagic in any case, especially of a passive character. As an injection in gleet, gonorrhœa, leucorrhœa, etc., it is highly useful. As a gargle in ulcerated sore throat it is very efficacious. In chronic diarrhœa it is often useful, and given in small doses, in the night sweats of phthisis it has been found an excellent remedy.

More of **ELLIOTT'S** SADDLE BAGS are sold than all other patterns combined. One thousand have been shipped to different parts of the country since January 1st. The proprietor invites a thorough investigation and comparison of every Bag in the market. The U. S. Government did this in 1879, and adopted the ELLIOTT. Doctors that do the same thing get the standard article. Send for circular to A. A. DELLIER, 709 Washington Avenue, St. Louis, Mo.

JOHNSTON'S FLUID BEEF is an article that can be safely recommended as a concentrated natural agent. We have tried it in low states of the system and found it an admirable article. In the diarrhœas of infants, wherein the child is taken from the breast, and is dying of inanition, a little of this fluid beef has been known to support the child and save life. Try it.

HYDROLEINE.—The advertisement of this valuable preparation may be found in this Journal. As a substitute for Cod-Liver Oil in lung affections it is likely to have a fine run. The formula is published upon the labels, and will at once impress any practitioner in its favor, as well adapted to consumption and other wasting diseases.